



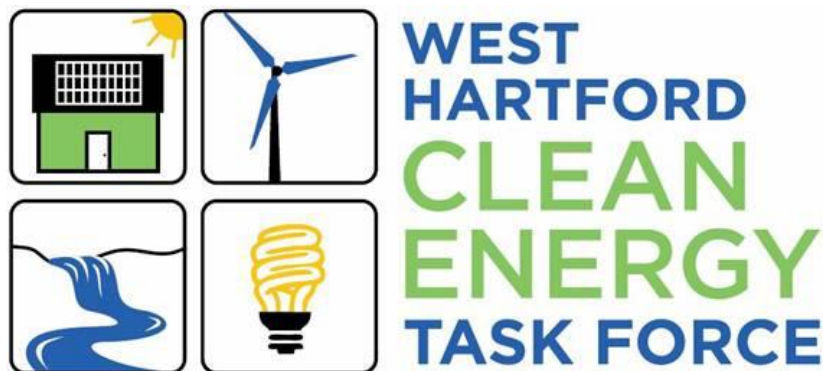
**West Hartford “Bright Idea” Event
Residential Solar Workshop
May 12, 2016**

Solarize Connecticut

- **Began 2012 – Based on Proven Model**
- **Six Rounds of Campaigns with 63 Communities**
- **Provided 2,188 Homes with over 17 MW of clean reliable power from solar installations**
- **West Hartford campaign in 2013-2014 resulted in 71 installations with over 400 kW of Solar**
- **Solarize statewide campaign**



Solarize Connecticut

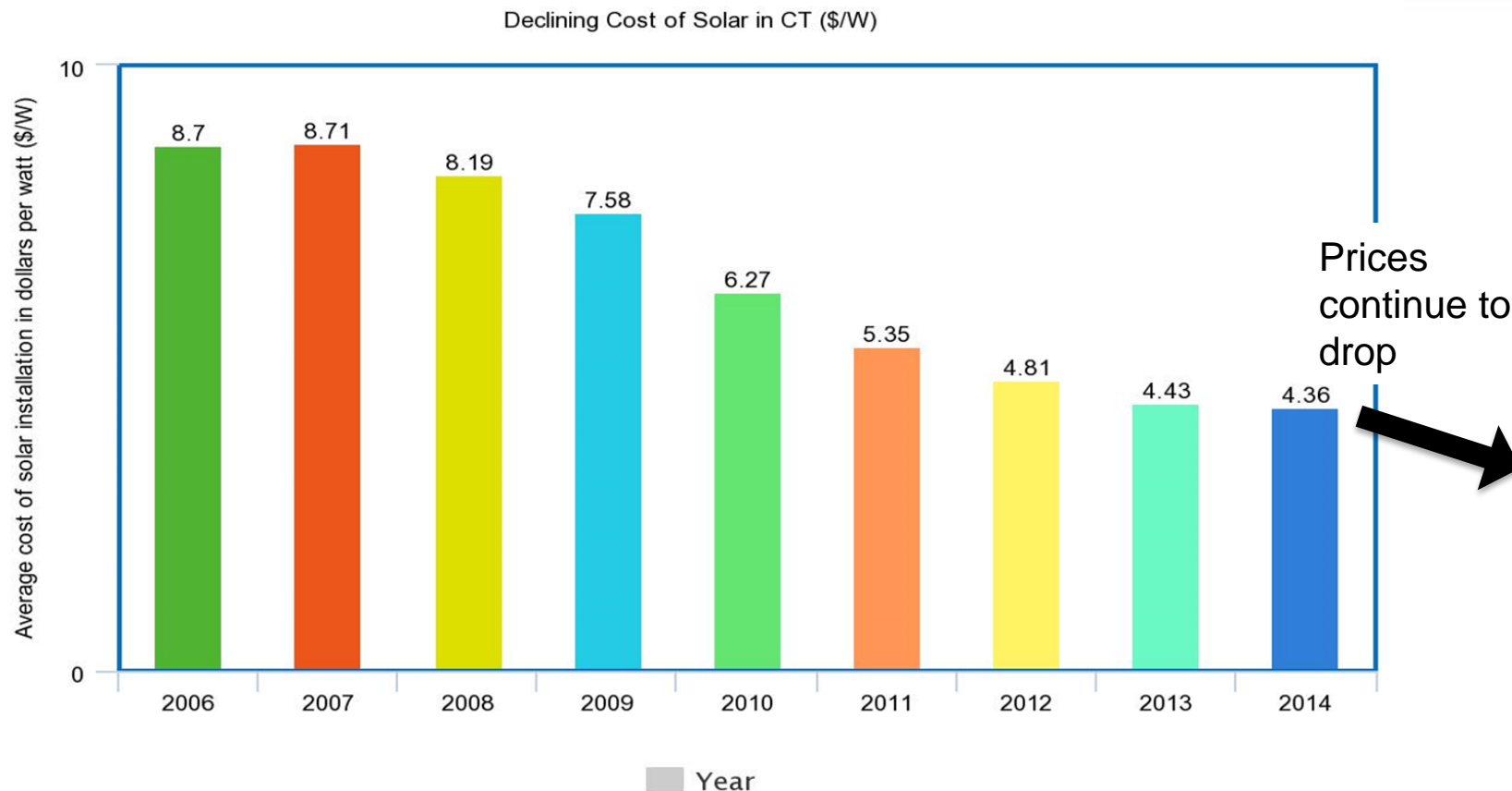


Now Is A Good Time To Go Solar



- **Generous incentives**
- **Know your money is safely invested on your own roof**
- **No market volatility or recession can deter your investment**
- **Have more disposable income for your family or retirement**

The Price of Solar Has Come Down



Solar Incentives

- **The CT Green Bank Rebate**
 - **\$0.513/watt up to 10 kW**
 - **\$0.40/watt from 10-20kW**
 - **Incentives may be lowered based on poor site conditions**
 - **Installers will handle all rebate applications with the Green Bank**
- **Federal Tax Credit**
 - **30% of project costs net of rebate**
- **Not Taxable—savings are after tax**
 - **No increase in property tax**
 - **No sales tax**

What Makes a Home Solar-Friendly?

- **Ample sunlight, little to no shading**
- **Southerly exposure best but east and west exposure works**
- **35 degree roof pitch ideal, but the typical roof is usually solar friendly**
- **Few roof obstructions**
- **Roof in good condition**



West Hartford Solar Installation

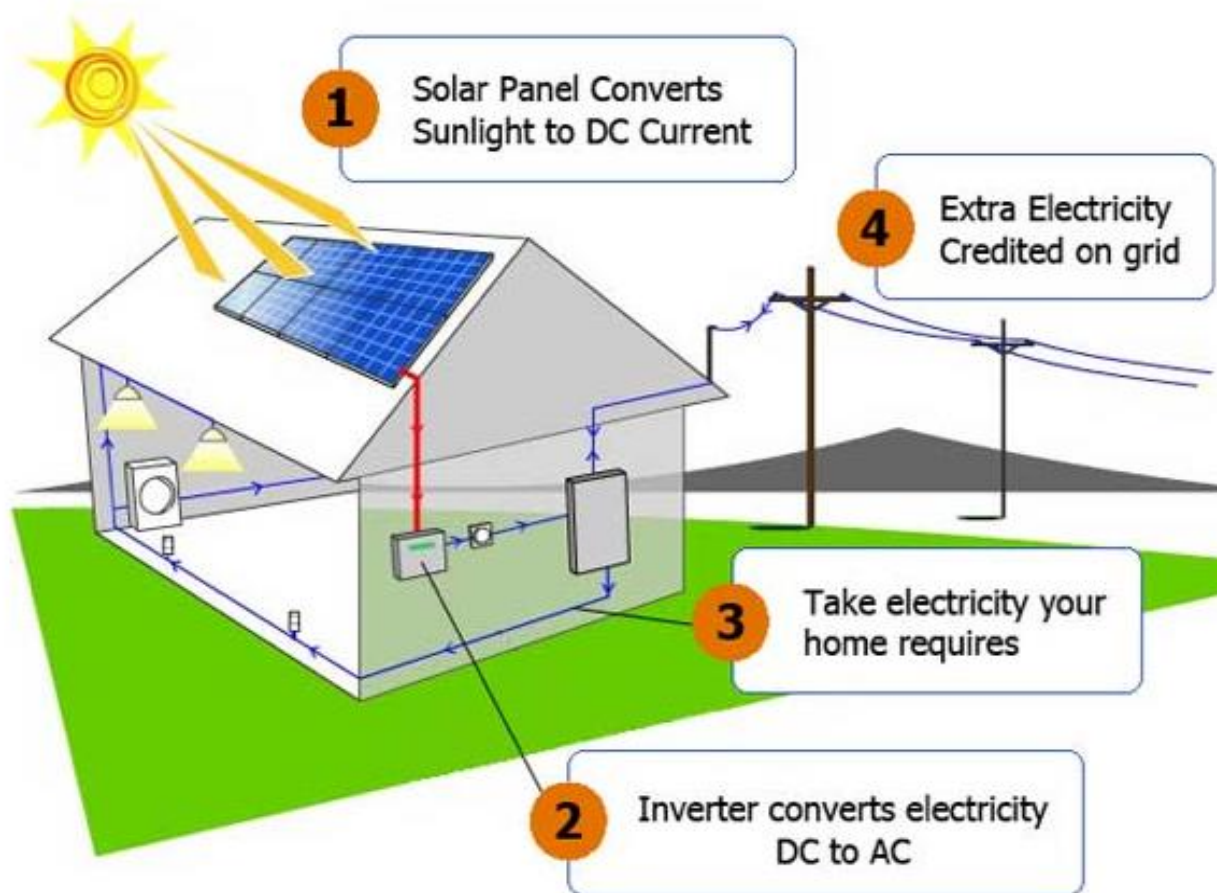


Energy Efficiency First

- **Maximize cost savings through energy efficiency measures – the cheapest energy is the energy you don't use!**
- **Must complete an energy assessment on your home before receiving rebates for solar, insulation or other measures**
- **Home Energy Solutions (HES) program offered through Eversource**
Services include:
 - Blower door-guided air sealing**
 - Duct sealing**
 - Insulation recommendations**
 - Water-saving measures**
 - CFL and LED light-bulbs**
- **Log onto energizect.com for more information**

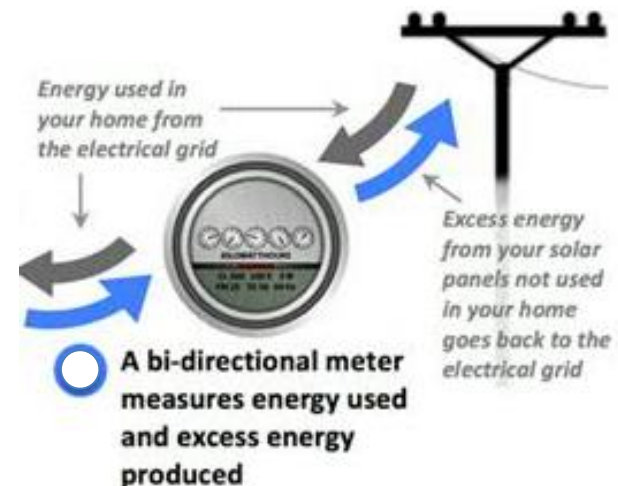


How Solar Works



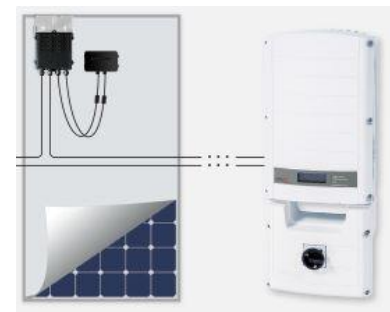
Net Metering

- Your installer will determine the size of your solar array based on your cumulative annual electricity consumption
- Your daily excess energy is sent back to the grid
- Utilities will give credit on your bill for excess production
- Your credits roll forward to offset months of higher use and lower system production
- Your overproduction is credited back to you when you need it



Panel and Inverter Options

- **Installers offer a variety of panels, including high efficiency, all-black, and made in the USA**
- **Inverters include central inverters, micro inverters, and optimizers**
- **Most panels are warrantied for 25 years**
- **Most central inverters are warrantied for 12 years**



How to Pay for a Solar Installation

Purchase

Upfront Investment

No Monthly Payments

Tax Credit & Rebate go
to **Home Owner**

Most savings

Loan

- **Little or No** Upfront Cost

- Monthly Payments

- Tax Credits & Rebate go to **Home Owner**

- **Let Solar Pay for itself**

- Substantial savings

Lease

- **No** Upfront Cost

- Monthly Payments

- Tax Credits & Rebate Go To **3rd Party Lessor**

- Good savings

Financing Options

- **Installers offer a variety of options for financing**
- **Let your installer know your financing goals and guide them in what options they offer**
- **Loans**
 - **Smart-E offered by the CT Green Bank**
Bundle solar with efficiency for 2.99%
 - **Dividend Solar**
\$0 down, can to be cash positive right away
 - **Sungage**
 - **Home Equity**
- **Lease**
 - **Good option if you have no tax liability**





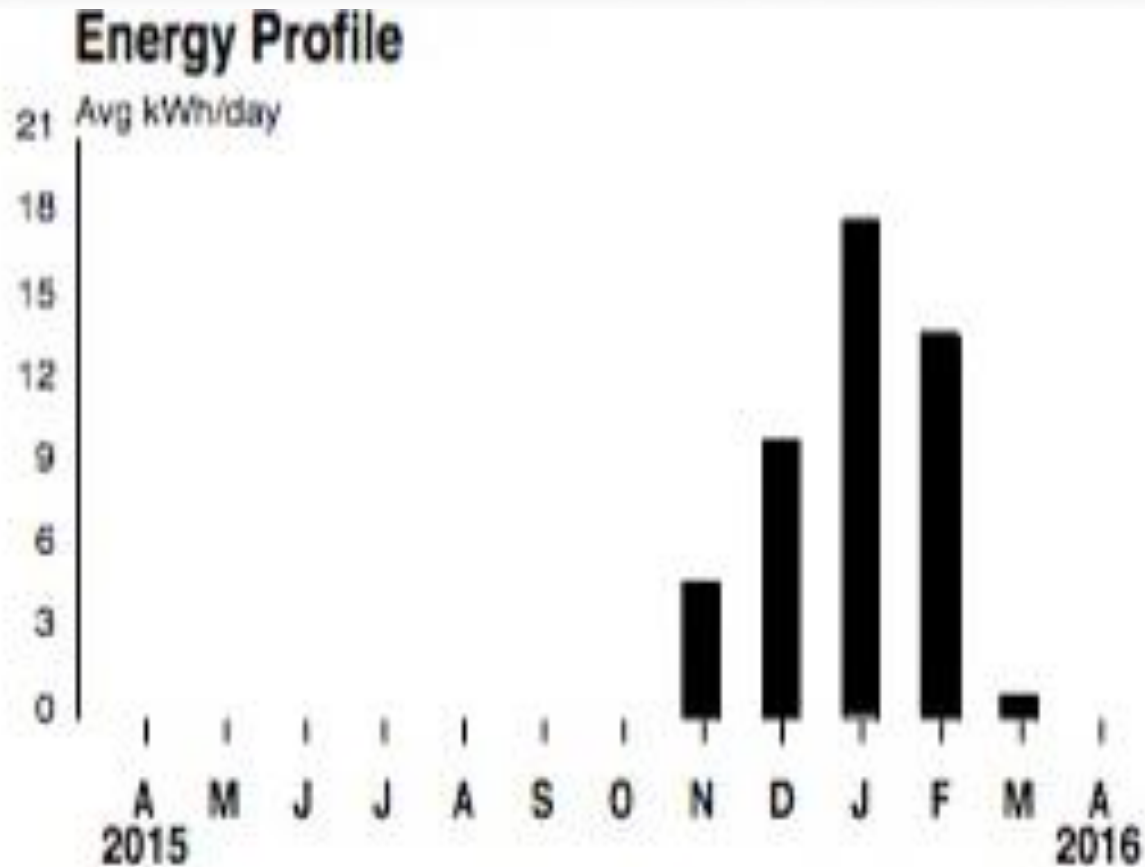
System Basics

- 24 Shuco 225 watt panels
- 5.4 kW system
- Central Inverter (in the garage)
- Cost: \$25,080 (4.64 per watt)
- Net investment after credits: \$11,372
- 2015 full year production 4706 Kwh
- Roof faces southwest with afternoon western shading (Azimuth 233)

Major Electric Appliances

- 2 Central Air Conditioners
- Electric Range
- Basement Dehumidifier
- Electric Dryer (big user!)
- 2 people
- Pellet Stove (running fan and auger)
- DVR

Net Energy Use by Month



Net Metering in Action

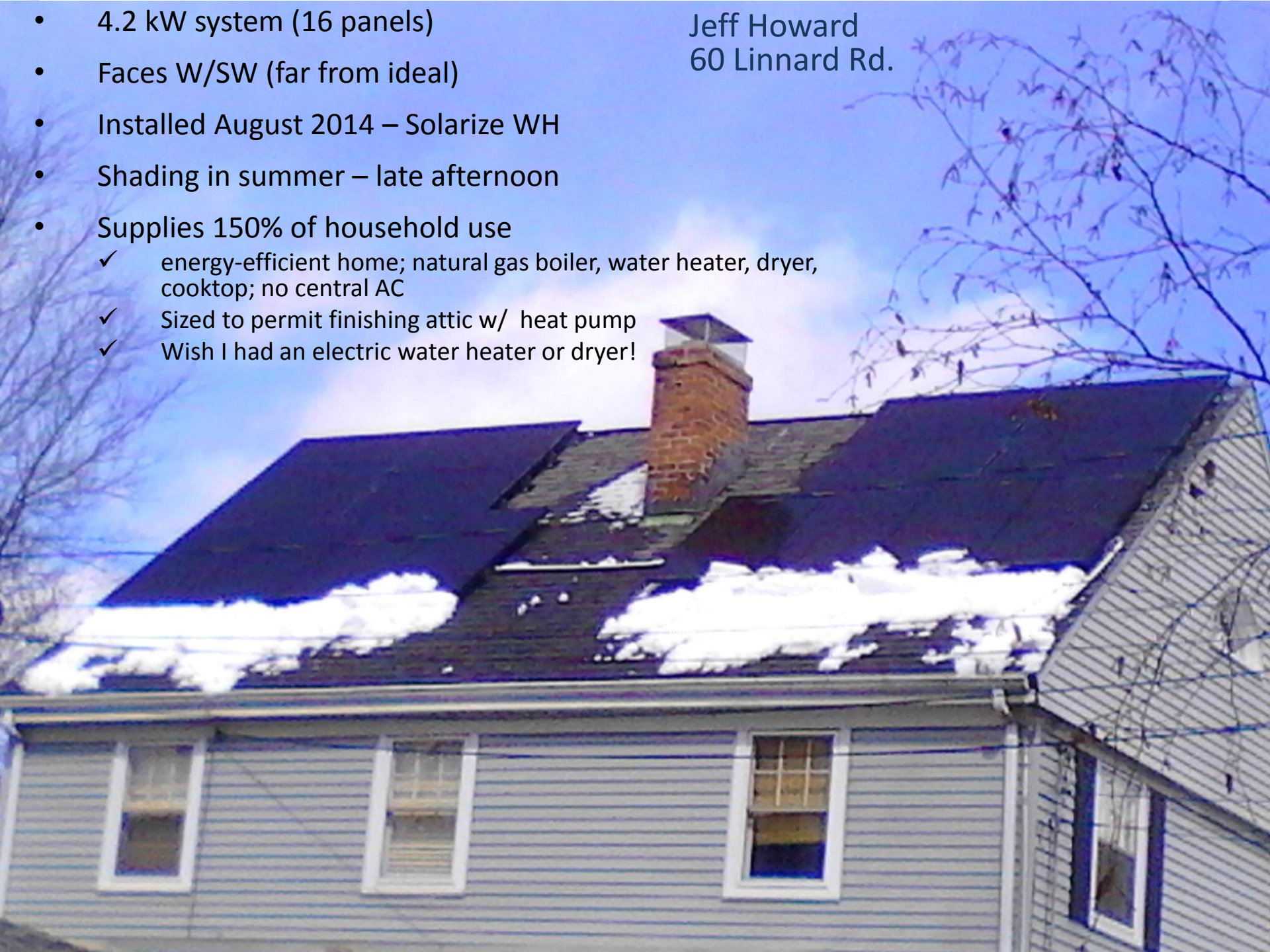
| | | |
|---------------------------------|-------------------------------|---------|
| Generation Detail | STANDARD SERVICE | |
| Generation Detail | COMMUNITY ENERGY CEO | |
| Delivery Services Detail | DISTRIBUTION RATE: 001 | |
| Distr Cust Srvc Chrg | | \$19.25 |
| Total Delivery Charges | | \$19.25 |
| Calculation of Carry Fwd KWH | | |
| Current Sales KWH | | 413 |
| plus 0 Prev Carry Fwd Sls KWH | | |
| minus Purchase KWH | | 288 |
| = New Carry Fwd Sales KWH | | 125 |
| 0 Net KWH Billed | | |
| Subtotal | | \$19.25 |

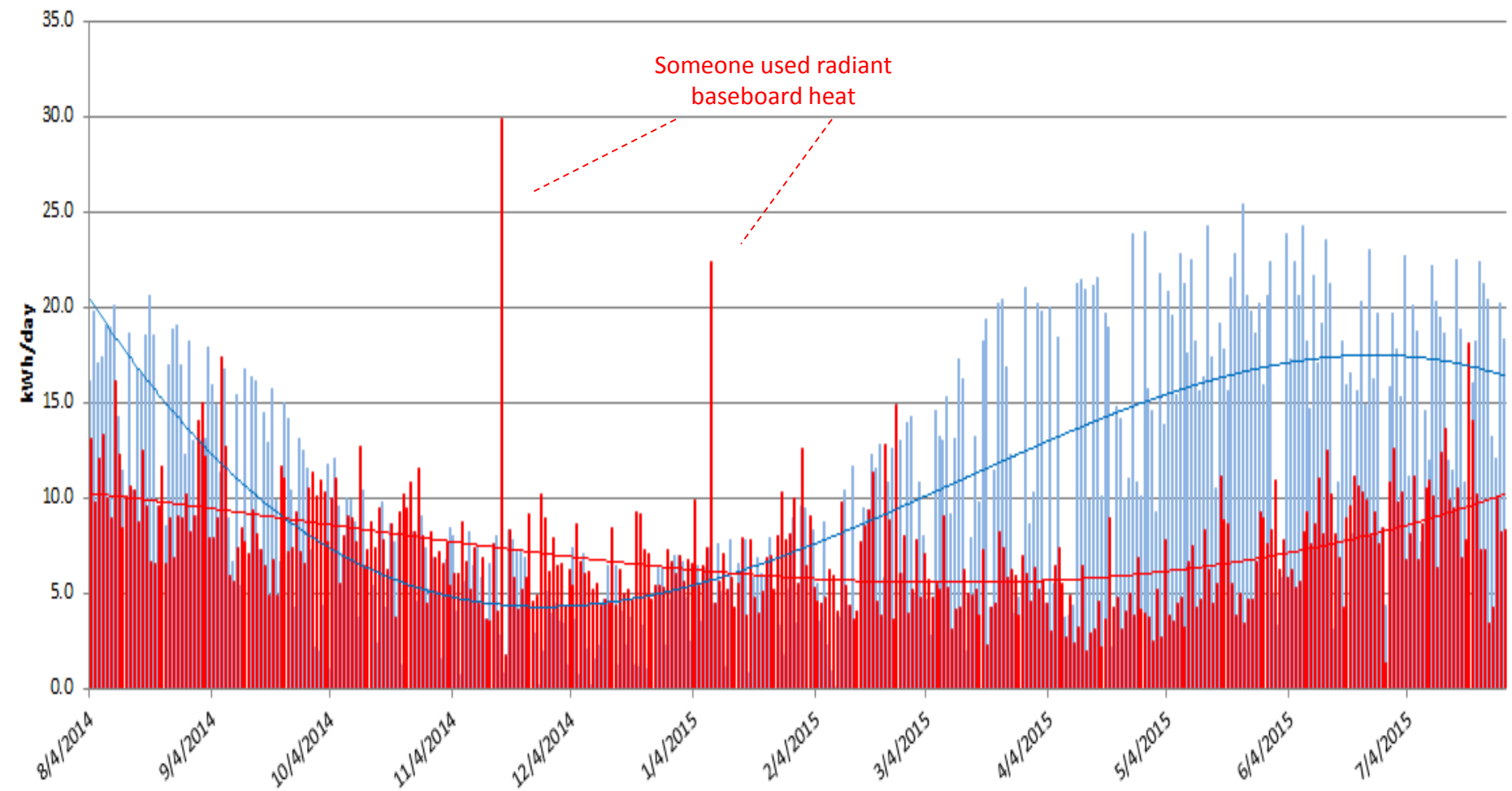
Summary Points

- Reduce then produce (LEDs – HES – New washer)
- In hindsight would should have built more in anticipation of plug in hybrid and heat pumps!
- Get several quotes (I only got one!)
- Very glad I did it

- 4.2 kW system (16 panels)
- Faces W/SW (far from ideal)
- Installed August 2014 – Solarize WH
- Shading in summer – late afternoon
- Supplies 150% of household use
 - ✓ energy-efficient home; natural gas boiler, water heater, dryer, cooktop; no central AC
 - ✓ Sized to permit finishing attic w/ heat pump
 - ✓ Wish I had an electric water heater or dryer!

Jeff Howard
60 Linnard Rd.

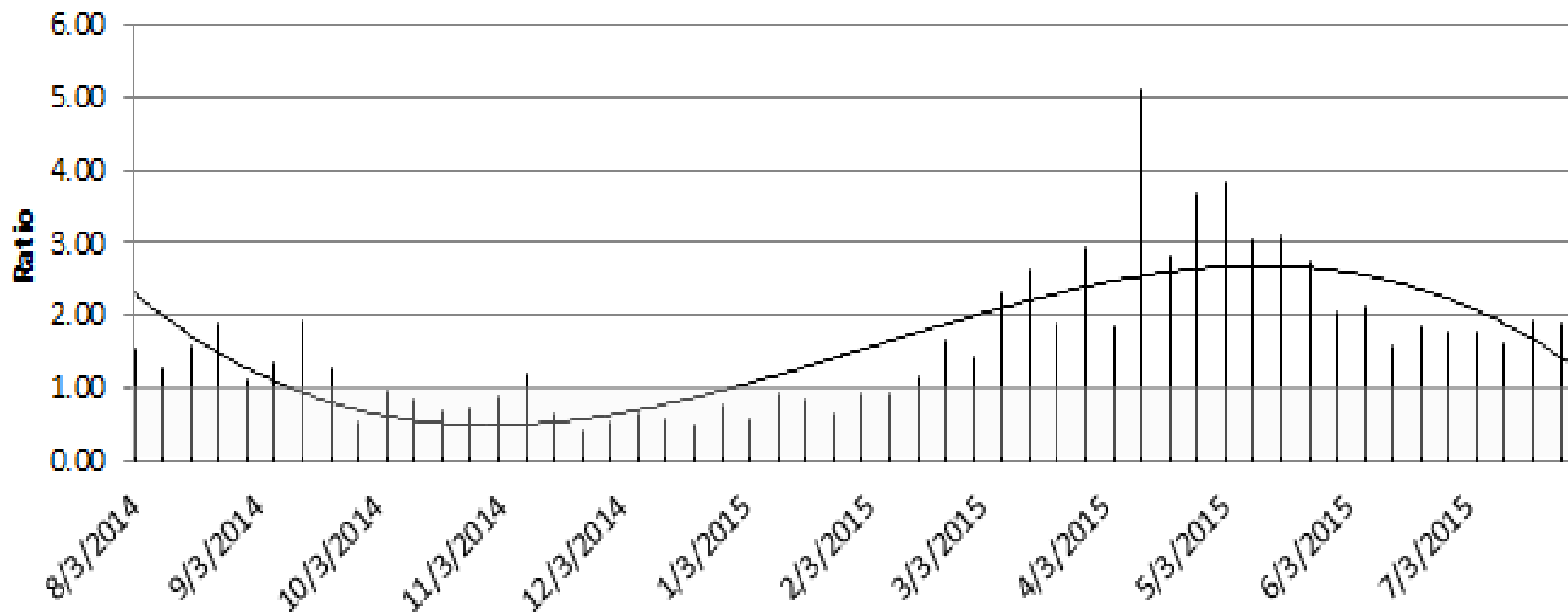




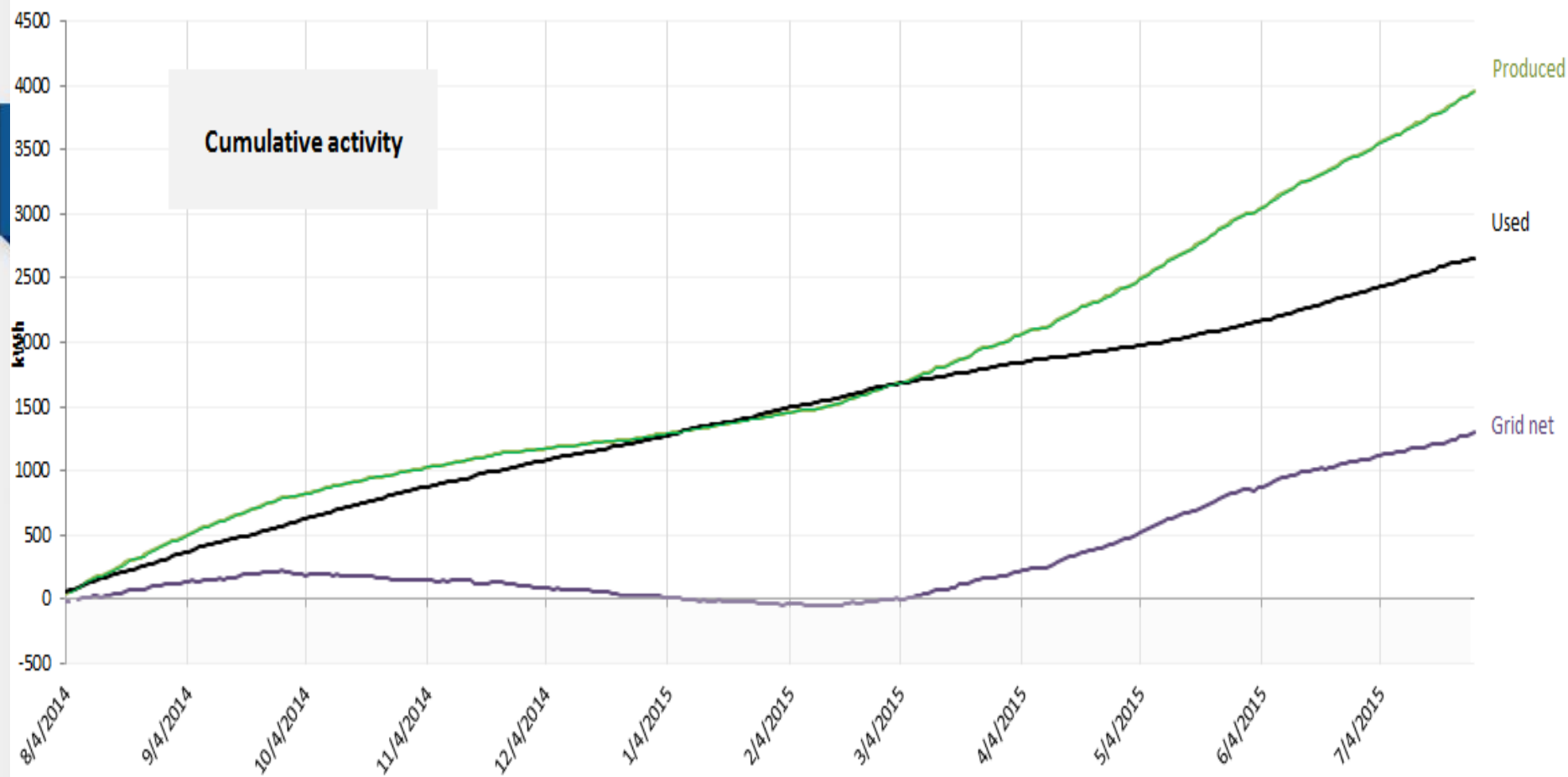
Used

Produced

Weekly ratio (produced/used)

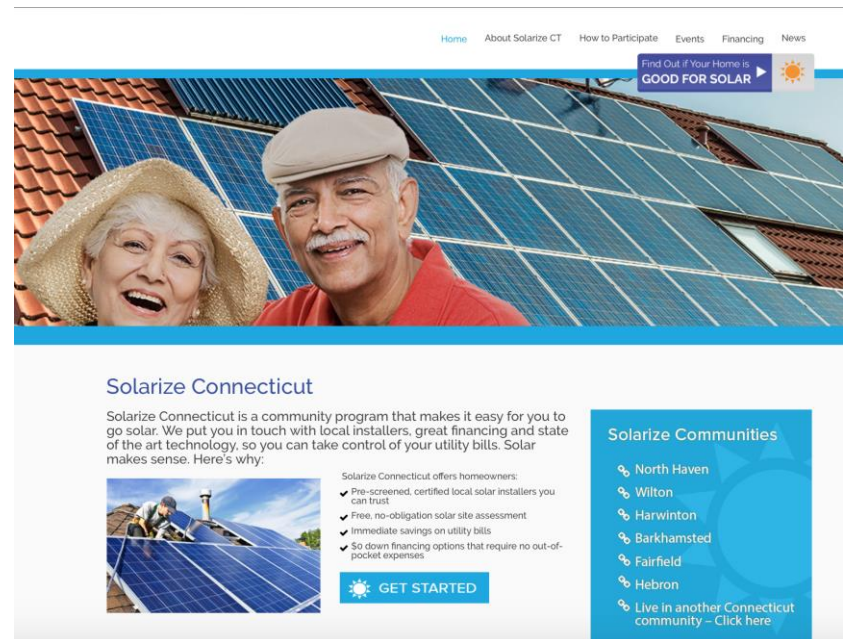


Cumulative activity



SolarizeCT.com

- Program Information
- Testimonials
- Newsroom
- FAQs
- Sign Up for Free Evaluation of Your Home For Solar



Next Steps

- **Log onto SolarizeCT.com for more information and to sign up for a no-cost, no-obligation site evaluation to find out if your home is good for solar**
- **This website will assign you to one of our vetted Solarize installers who will call or email you to arrange for a home evaluation**
- **Like any project - a second proposal for solar is recommended**
- **You can find other solar installers on energizect.com**

Contact Us



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860 604-4846

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860 331-1041



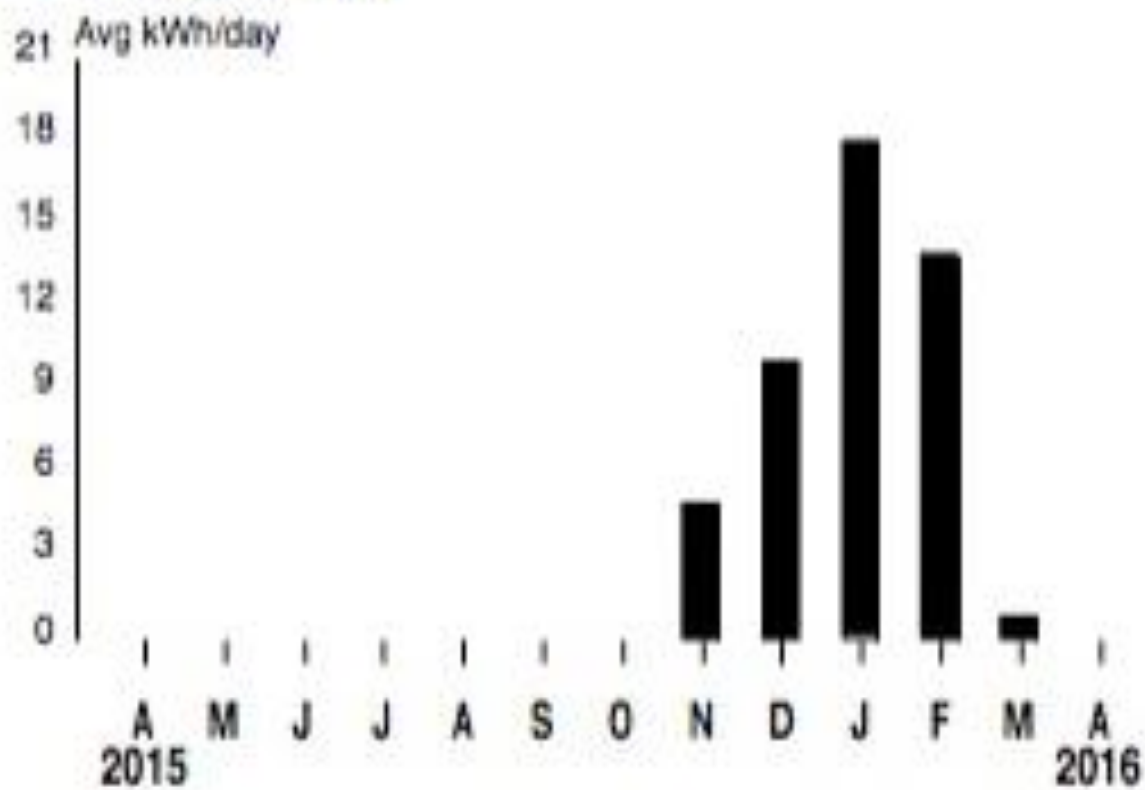
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Energy Profile



Net Metering in Action

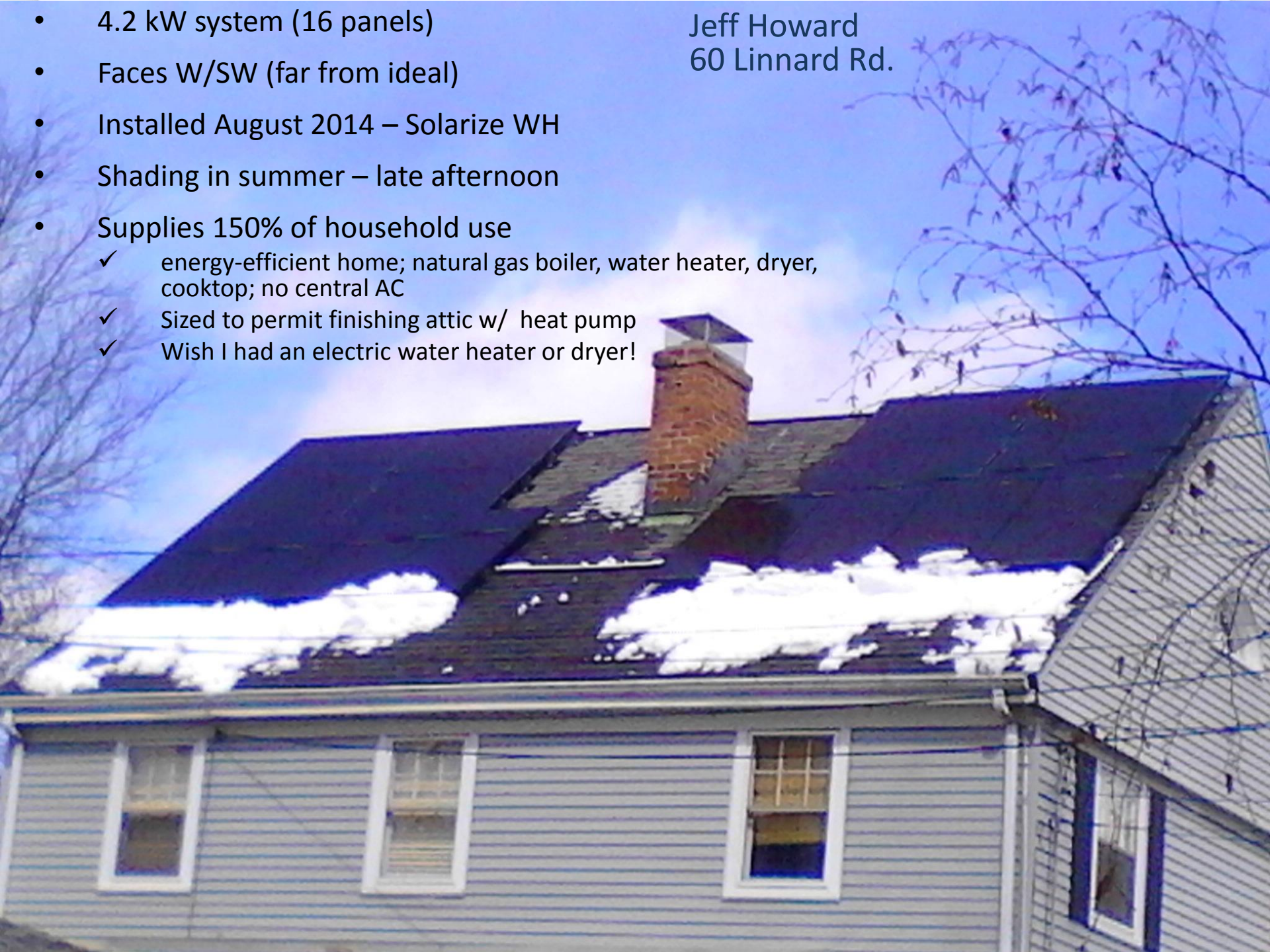
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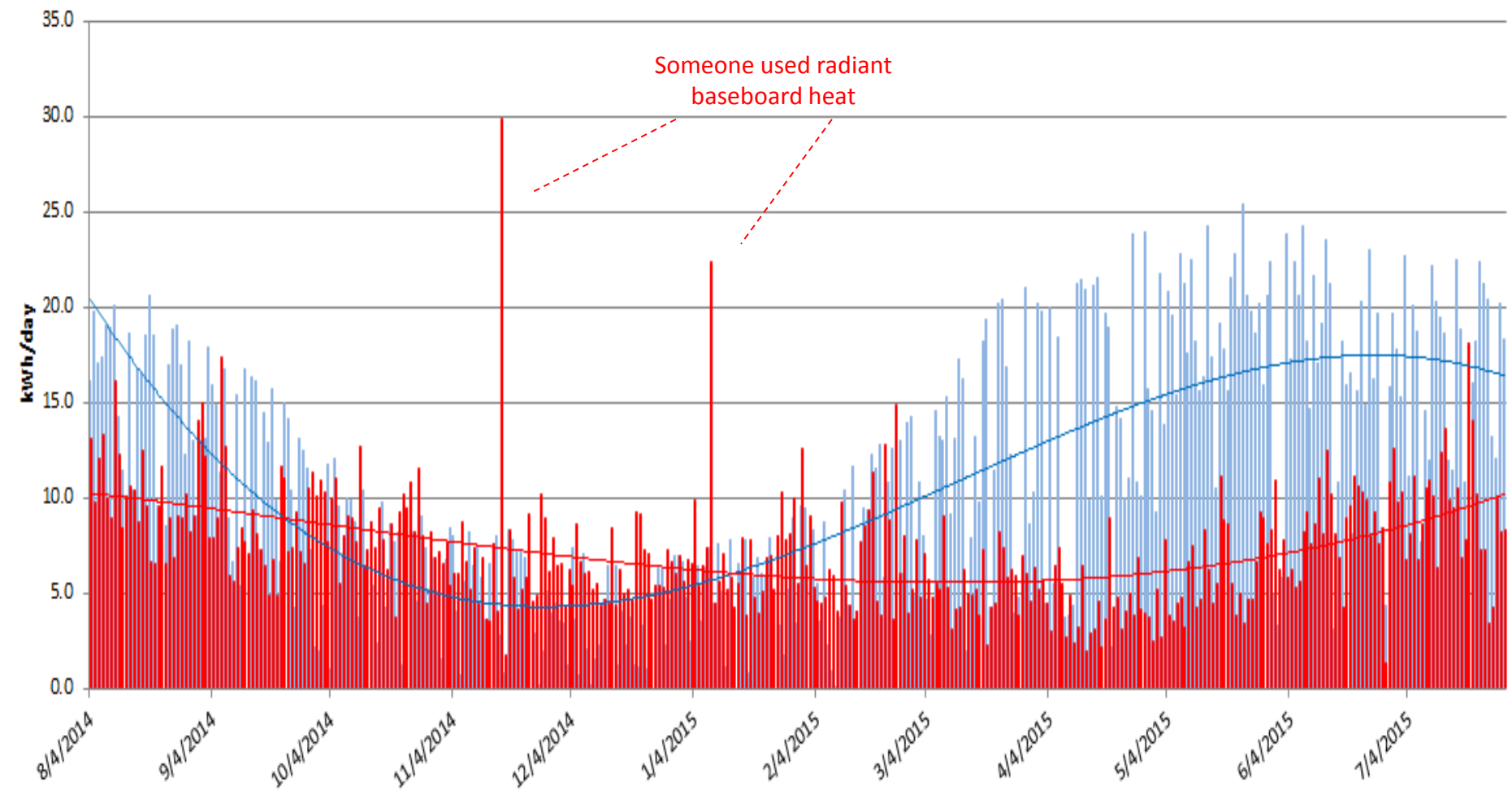
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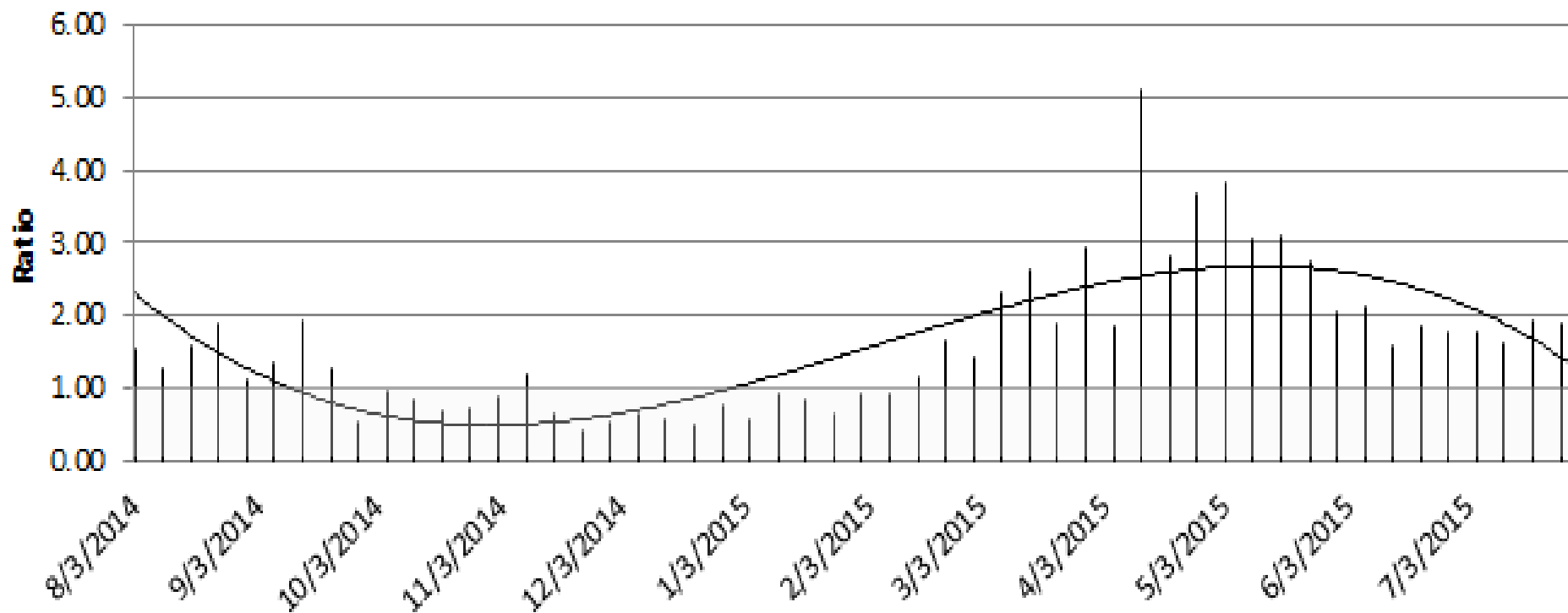




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Cumulative activity

